

Int'l. App. No.: PCT/GB00/03747
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15. A method of determining the phenotypic effect of a compound, said method comprising the steps of:

- (1) exposing a transgenic rodent claim 1 to said compound;
(2) and determining changes in phenotype.

16. The method according to claim 15, wherein the phenotype corresponds to a UCP3-related disease selected from the group consisting of: obesity, diabetes, hyperlipidaemia, body weight disorders, wound healing, cachexia, inflammation, tissue repair, and atherosclerosis.

REMARKS

This Preliminary Amendment is being made upon entry of International Application No. PCT/GB00/03747 into the U.S. National Phase of prosecution. Claims 2-6, 9-12, and 14-16 have been amended to eliminate multiple dependencies and to comply with proper U.S. claim format. Furthermore, attached hereto is a marked-up version of the changes made to the application by the current preliminary amendment. The attached page is captioned, "Version with markings to show changes made."

Respectfully submitted,

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2. [A] The transgenic rodent according to claim 1 wherein the polynucleotide encoding a human UCP3 polypeptide is selected from the group consisting of:
- (a) a polynucleotide comprising a polynucleotide sequence having at least 95%, 96%, 97%, 98%, or 99% identity to the polynucleotide sequence of SEQ ID NO:1;
 - (b) a polynucleotide comprising the polynucleotide of SEQ ID NO:1;
 - (c) a polynucleotide having at least 95%, 96%, 97%, 98%, or 99% identity to the polynucleotide of SEQ ID NO:1;
 - (d) the polynucleotide of SEQ ID NO:1;
 - (e) a polynucleotide comprising a polynucleotide sequence encoding a polypeptide sequence having at least 95%, 96%, 97%, 98%, or 99% identity to the polypeptide sequence of SEQ ID NO:2;
 - (f) a polynucleotide comprising a polynucleotide sequence encoding the polypeptide of SEQ ID NO:2;
 - (g) a polynucleotide having a polynucleotide sequence encoding a polypeptide sequence having at least 95%, 96%, 97%, 98%, or 99% identity to the polypeptide sequence of SEQ ID NO:2;
 - (h) a polynucleotide encoding the polypeptide of SEQ ID NO:2;

- 6-

- a) preparing transgene construct comprising coding region of the gene of interest operably linked to an appropriate regulatory sequence;
- b) removing vector sequences by restriction digest;
- c) introducing the transgene into the rodent by pronuclear injection; and
- d) re-transferring the injected eggs into the uteri of pseudo-pregnant recipient mothers.

12. The [A] method of producing the [a] transgenic rodent according to claim 11, wherein the rodent is a mouse and the transgene is introduced into mouse ES cells[,] using a method selected from the group consisting of: electroporation, retroviral vectors, [or] and lipofection for gene transfer.

14. [A] The transgene according to claim 13, wherein the rodent regulatory sequence is the alpha-actin promoter.

15. A method of determining the phenotypic effect of a compound, said method comprising the steps of:

- (1) exposing a transgenic rodent [of any one of] claim[s] 1 [to 10] to said compound; (2) and determining changes in phenotype.

16. [A] The method according to claim 15, wherein the phenotype [is that of] corresponds to a UCP3-related disease selected from the group consisting of: obesity, diabetes, hyperlipidaemia, body weight disorders, wound healing, cachexia, inflammation, tissue repair, and atherosclerosis.